

LISTING OF CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the
Application:

Claims 1-13 (canceled)

Claim 14 (new): A method for forming a multi-level interconnection structure in a
semiconductor device, said method comprising the steps of:

forming first level interconnections overlying a substrate;

consecutively forming first and second dielectric films on said first level
interconnections;

consecutively forming first through third hard mask films on said second dielectric film,
said first through third hard mask films being insulating films;

selectively etching said second and third hard mask films to form a through-hole pattern
on said second and third hard mask films;

selectively etching said third hard mask film to form a trench pattern on said third hard
mask film, said trench pattern partially overlapping said through-hole pattern;

selectively etching said first hard mask film by using said second hard mask film as an
etching mask to form said through-hole pattern on said first hard mask film;

selectively etching said second dielectric film by using said first hard mask film as an
etching mask to form first through-holes in said second dielectric film based on said through-
hole pattern;

selectively etching said first and second hard mask films and a top portion of said first
dielectric film by using said third hard mask film as an etching mask to form trenches in said first

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and second hard mask films and said top portion of said second dielectric film based on said trench pattern; and

selectively etching said first dielectric film to form therein second through-holes communicated with respective said first through-holes for exposing part of said first level interconnections through said first and second through-holes.

Claim 15 (new): The method as defined in claim 14, wherein at least said three hard mask films are in direct contact with each other and are made of different materials.

Claim 16 (new): The method as defined in claim 14, wherein at least said three hard mask films are in direct contact with each other and have different etching rates.

Claim 17 (new): The method as defined in claim 14 wherein, in said second and third hard mask films etching step, a first anti-reflection film is formed on said third hard mask, a first etching film having a through-hole pattern is formed on said first anti-reflection film, and said first anti-reflection film and subsequently said third and second hard mask films are etched.

Claim 18 (new): The method as defined in claim 14, wherein, in said third hard mask film etching step, a second anti-reflection film is formed on said third hard mask for filling the first through-hole pattern, a second etching mask having a trench pattern is formed on the second anti-reflection film, and said second anti-reflection film and subsequently said third hard mask film are etched.

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